

ABSTRACT

After forming domain inverted layers 3 in an
LiTaO₃ substrate 1, an optical waveguide is formed. By
5 performing low-temperature annealing for the optical
wavelength conversion element thus formed, a stable
proton exchange layer 8 is formed, where an increase in
refractive index generated during high-temperature
annealing is lowered, thereby providing a stable optical
10 wavelength conversion element. Thus, the phase-matched
wavelength becomes constant, and variation in harmonic
wave output is eliminated. Consequently, with respect to
an optical wavelength conversion element utilizing a non-
linear optical effect, a highly reliable element is
15 provided.